

Washington

2018 Electric Demand-Side Management Annual Conservation Plan (ACP)

Table of Contents

I.	E	XECUTIVE SUMMARY	3
II.	11	NTRODUCTION	5
III.	K	EY CONSIDERATIONS	6
a.		Evaluation, Measurement and Verification (EM&V) Commitments	6
b.		Cost-Effectiveness Metrics, Methodology and Objectives	8
c.		Schedule 90 and 190 Revisions	9
d.		Schedule 91 and 191 Revisions	10
e.		Washington Energy Independence Act Standards for the 2018-2019 Biennium	10
IV.	D	SM PORTFOLIO OVERVIEW	11
a.		Residential Portfolio Overview	12
b.		Low Income Portfolio Overview	14
c.		Non-Residential Prescriptive Program Overview	16
d.		Non-Residential Site-Specific Program Overview	16
e.		Regional Market Transformation	17
V.	Р	ILOT PROJECTS	19
a.		Residential In-Home Energy Audit and Weatherization	19
b.		Multifamily Hard to Reach Program	20
c.		Residential Behavioral Pilot Program	20
d.		Residential Wall Insulation Pilot	21
e.		Ecova Commercial Building Operation Simulation Pilot	22
f.		Low-Income Multifamily Pilot Program	22
VI.	Α	VISTA-SPECIFIC METHODOLOGIES AND ANALYTICAL PRACTICES	22
VII.	Α	NALYTICAL REVIEW OF MEASURES BY PROGRAM	24
VIII.	S	ECTOR COST-EFFECTIVENESS PROJECTIONS AND RELATED METRICS	32
IX.	٧	VASHINGTON I-937 ACQUISITION TARGET	34
Χ.	S	UMMARY OF 2018 BUDGET	35
XI.	S	TUDIES AND OTHER ITEMS	38
a.		On-Bill Repayment	38
b.		iEnergy DSM Enterprise Software Integration	39
c.		Particulate Matter 2.5	39

	D 1 T' EN 40 1/0 0	~~
d.	Real Time FM&V 2.0	20

Appendix Summary

Appendix A: 2018 Program Plans

Appendix B: 2018 Evaluation, Measurement and Verification Plan Appendix C: Summarization of Cost-Effectiveness Methodology Appendix D: Quick Reference Guide to Commonly Used Terms

Appendix E: Schedule 90 and 190, Washington

Appendix F: Program Summary

I. EXECUTIVE SUMMARY

Avista Utilities' (Avista or the Company) annual conservation plan (ACR or the Plan) is provided consistent with RCW 19.285.040(1), WAC 480-109-120(2)¹ and requirements outlined in Commission Order No. 01 in Docket No. UE-152076 approving Avista's 2016-2017 Biennial Conservation Plan with conditions.

Avista chose to use its 2017 Electric Integrated Resource Plan (IRP) centered on its Conservation Potential Assessment (CPA), as the basis for its 2018-2019 biennial acquisition target². Avista intends to acquire 73,636 Megawatt-hours (MWh) of qualifying energy efficiency, which is the pro rata share of the ten-year conservation potential³, during the 2018-2019 biennium in order to fulfill the I-937 and decoupling requirements. Over a ten-year horizon (2018 through 2027), the Company's CPA anticipated the acquisition of 368,181 MWh. For the 2018-2019 biennium, the Company will acquire 73,636 MWh as identified in the IRP process⁴. This amount is the pro-rata share of the ten-year conservation potential which was greater than the two-year cumulative conservation potential of 69,899 MWh.

¹ On or before November 15th of each even-numbered year, a utility must file with the commission, in the same docket as its current biennial conservation plan, an annual conservation plan containing any changes to program details and annual budget.

² WAC 480-109-100(2)(b) This projection must be derived from the utility's most recent IRP, including any information learned in its subsequent resource acquisition process, or the utility must document the reasons for any differences. When developing this projection, utilities must use methodologies that are consistent with those used in the Northwest Conservation and Electric Power Plan.

³ WAC 480-109-100(3)(b) The biennial conservation target must be no lower than a pro rata share of the utility's tenyear conservation potential.

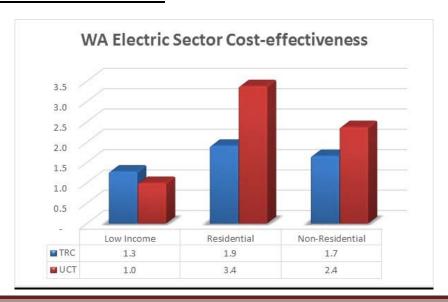
⁴ The Company will also acquire 15,386 MWh of conservation savings though its behavioral program offerings for an adjusted acquisition target of 89,022 MWh.

The 2018 Plan represents program efforts by the Company in order to achieve its expected eligible acquisition savings for the 2018-2019 biennium. For the 2018 ACP, the Company has identified planned conservation savings, including fuel conversions, of 58,342 MWh from local efforts and a total of 63,335 MWh after including NEEA. Avista has planned expenses of \$2.6 million of fully loaded labor funding across electric and natural gas programs in Washington, a 2.2% decrease from the 2017 budget. The proportion of total utility expenditures returned to customers in the form of direct incentives is 69% which is an increase from the 50% in the 2017 Annual Conservation Plan. The estimated 58,342 MWh is an increase in the forecasted energy savings from the 2017 forecasted acquisition of 35,782 MWh. Table 1 below illustrates the savings and total budget per sector for the 2018 program year. Note that budget numbers include Non-Incentive Utility Costs (NIUC).

Table 1: 2018 Savings and Budget by Sector (w/o NEEA):

Washington Electric by Sector	MWh	Budget	
Low Income	848	\$ 1,281,967	
Residential	33,329	\$ 6,272,844	
Non-Residential	24,165	\$ 6,863,554	
Total	58,342	\$ 14,418,365	

Figure 1: Portfolio Cost-effectiveness



II. <u>INTRODUCTION</u>

The Company's approach to energy efficiency is based on two key principles. The first is to pursue all cost-effective kilowatt hours and therms by offering financial incentives for energy saving measures with a simple financial payback of over one year. The second key principle is to use the most effective "mechanism" to deliver energy efficiency services to customers. These mechanisms are varied and include 1) prescriptive programs (or "standard offers" such as high efficiency appliance rebates), 2) site-specific or "customized" analyses at customer premises, 3) "market transformational," or regional, efforts with other utilities, 4) low-income weatherization services through local Community Action Agencies, 5) low-cost/no-cost advice through a multichannel communication effort, and 6) support for cost-effective appliance standards and building codes.

This Annual Conservation Plan is intended to be a continuous planning process. The Company is committed to maintain and enhance meaningful stakeholder involvement within this process. Over the course of the following year, revisions and updates to the plan are to be expected as part of adaptively managing the DSM portfolio.

The Company's programs are delivered across a full customer spectrum. Virtually all customers have had the opportunity to participate and a great many have directly benefited from the program offerings. All customers have indirectly benefited through enhanced cost-efficiencies as a result of this portfolio approach.

The business planning process builds upon the electric and natural gas IRP and CPA processes. These processes are an overall resource planning process completed every two years that integrate energy efficiency and generation resources into a preferred resource scenario. It is the purpose of the business plan to create an operational strategy for reaching the aggregate targets identified within the IRP in a manner that is cost-effective and with due consideration to all aspects of customer value.

The annual planning process also leads to the identification of infrastructure and support needs such as:

- defining the necessary labor complement
- establishment of an annual budget

- review of and modification to the measurement, evaluation and verification (EM&V) plan
- identification of outreach requirements
- organization of a marketable customer-facing portfolio

The budgetary projections established within the Plan are applied in a separate mid-year process to revise the DSM tariff rider funding mechanisms contained within the Schedule 91 electric and Schedule 191 natural gas tariffs. The tariff rider surcharges are periodically adjusted with the objective of moving these balances toward zero.

III. <u>KEY CONSIDERATIONS</u>

a. Evaluation, Measurement and Verification (EM&V) Commitments

Within its DSM portfolio, Avista incorporates EM&V activities to validate and report verified energy savings related to its energy efficiency measures and programs. EM&V protocols serve to represent comprehensive analyses and assessments necessary to supply useful information to management and stakeholders that adequately identifies the acquisition of energy efficiency attributable to Avista's DSM Programs, as well as potential process improvements necessary to improve operations both internally and for customers. EM&V includes Impact and Process, and taken as a whole, are analogous with other industry standard terms such as Portfolio Evaluation or Program Evaluation.

A primary responsibility of Avista's EM&V resources is to support the ongoing activities of the third-party EM&V consultants and evaluators performing the various analyses required to substantiate the conservation acquisition, determine market saturation and penetration and process evaluations. The 2018 EM&V budget provides for third-party EM&V services that provide an evaluation of 2018 program year portfolio, along with consolidating these findings with results obtained for 2017 for reporting requirements associated with the Energy Independence Act (EIA) biennium.

To support planning and reporting requirements, several guiding EM&V documents are maintained and published. This includes the Avista EM&V Framework, an annual EM&V Plan and EM&V contributions within other DSM and Avista corporate publications. Program-specific

EM&V plans are created as required to inform and benefit the DSM activities. These documents are reviewed and updated as necessary, serving to improve the processes and protocols for energy efficiency measurement, evaluation and verification.

EM&V efforts will also be applied to evaluating emerging technologies and applications in consideration of potential inclusion in the Company's energy efficiency portfolio. In the Electric Portfolio, Avista may spend up to 10 percent of its conservation budget on programs whose savings impact have not yet been measured if the overall portfolio of conservation passes the applicable cost-effectiveness test. These programs may include educational, behavior change and other types of investigatory projects. Specific activities can include product and application document reviews, development of formal evaluation plans, field studies, data collection, statistical analysis and solicitation of user feedback.

Avista and its customers benefit from regional activities and resources in the energy efficiency and conservation domain. To engage with and contribute to regional efforts, one Avista staff member has a voting role and a second member of the Avista staff member has a corresponding member role on the Regional Technical Forum (RTF) that serves as an advisory committee to the Northwest Power and Conservation Council (NPCC). The RTF is a primary source of information relating to the standardization of energy savings and measurement processes for electric applications in the Pacific Northwest. This knowledge base provides energy efficiency data, metrics, non-energy benefits and references that are suitable for inclusion in Avista's Technical Reference Manual (TRM) relating to acquisition planning and reporting. In addition, the Company engages with other Northwest utilities and the Northwest Energy Efficiency Alliance (NEEA) in various pilot projects or subcommittee evaluations. Portions of the energy efficiency savings acquired through NEEA's programs within the region are attributable to Avista's portfolio.

Avista's commitment to the critical role of EM&V is supported by the Company's continued focus on the development of best practices for its processes and reporting. Application of the principles of the International Performance Measurement and Verification Protocol serves as the guidelines for measurement and verification plans applied to Avista programs. Additionally, the recent compilation of EM&V protocols released under the U.S. Department of Energy's Uniform Methods Project will be considered and applied where possible to support consistency and credibility of the reported results. The verification of a statistically significant number of

projects is often extrapolated to verify and perform impact analysis on complete programs within reasonable standards of rigor and degree of conservatism. This process serves to insure Avista will manage its DSM portfolio in a manner consistent with utility and public interests.

b. Cost-Effectiveness Metrics, Methodology and Objectives

The Company's planning approach aims to maximize cost effective conservation acquired by analyzing the cost effectiveness of each segment (Residential, Commercial/Industrial and Low Income) and how the measures within the programs contribute to the cost effectiveness of that segment and eventually the individual portfolios. Non-energy benefits (NEBs) are a common topic of discussion in many energy evaluation circles and the Company is appreciative of the valuable work the RTF has done to quantify NEBs for the region. In this Plan where NEBs are calculated and the delivery method is consistent with what is required by the RTF the calculated NEBs were included in the appropriate cost effectiveness tests (Total Resource Costs (TRC) and Participant Cost Test (PCT)). Since the RTF does not currently have UES or NEB values for commercial lighting a similar methodology was used to calculate the NEB value of efficient lighting measures that have longer measure lives than the baseline technology. The Company will continue to follow and participate in RTF activities around NEBs and will include NEBs in the cost effectiveness calculation when appropriate.

Details regarding how Avista applies the avoided costs and cost-effectiveness methodologies to the estimation of the 2018 portfolio are contained in Appendix C to this Plan. The results of the TRC and Utility Cost Test (UCT) tests are summarized by program and portfolio in Appendix A.

The Company maintains an active involvement in the regional energy efficiency community and is committed to acknowledging and addressing new energy efficiency developments as they are presented. WUTC Commission Staff has worked closely with the National Efficiency Screening Project to explore and develop the National Standard Practice Manual (NSPM) which provides a thoughtful review of the challenges associated with traditional conservation cost-effectiveness tests and provides a framework to guide Conservation Program

Administrators and Regulators as they seek to address these challenges going forward. A key element of the NSPM's seven-step framework includes the completion of a Resource Value Test (RVT) questionnaire. Avista attended an introductory workshop facilitated by the WUTC on September 12th, 2017 which introduced the NSPM, the universal principles and resource value framework steps, and identified policy goals. A second workshop was scheduled for October 2, 2017 but was cancelled to provide more time for preparation. The intent of the second workshop was a more in-depth exploration and review of the RVT and the NSPM. There has been limited review and regional discussion of the NSPM to date.

At this time, Avista is unable to assess the potential value or ramifications of implementing a new cost-effective methodology and without further exploration into the NSPM and RVT is unable to advocate for this change. However, throughout 2018, the Company will work with Commission Staff, its Advisory Group, utilities and other stakeholders in a collaborative process to discuss RVT, the NSPM, cost-effectiveness calculation policy goals as well as a timeline and plan for potential incorporation. These discussions could also address how to implement potential revisions, should they be deemed warranted.

c. Schedule 90 and 190 Revisions

Avista's electric DSM operations are governed by Schedule 90 tariff requirements and natural gas DSM operations are governed by Schedule 190. These tariffs (attached within Appendix E) detail the eligibility and allowable funding that the Company provides for energy efficiency measures. Though the tariff allows for considerable flexibility in how programs are designed and delivered and accommodates a degree of flexibility around incentives for prescriptive programs subject to reasonable justification, there remains the occasional need to modify the tariff

to meet current and future market conditions and opportunities. The Company proposes revisions to three areas of its Schedule 90 and 190 tariffs.

- 1. The Company has identified that the current Schedule 90 and Schedule 190 tariffs do not provide low income programs an exception to the \$.20 per kWh and \$3.00 per Therm limits. The Company has proposed a modification to the language in Section 4.1 that would identify that cost effective low income programs may be funded up to 100% of the project cost.
- 2. The Company proposes the removal of the minimum measure life of 10 years as stated in Section 4.1 of Schedules 90 and 190.
- 3. The Company proposes that the language in Section 4.1 of Schedule 90 be modified so that 100% of the "project" cost is stated instead of the current language that refers to the "incremental" cost. This would make the tariff consistent with the Company's practice for Low-Income programs. Please see Appendix E for a copy of the tariff schedule.

d. Schedule 91 and 191 Revisions

The Company is currently monitoring the balance in both the electric and natural gas tariff riders. As of the end of August 2017, the negatives (underfunded) balances were \$14 million electric and \$0.1 million natural gas. WAC 480-100-130(2) requires the utility to file on or before June 1st every year to "true up" the rider balance with an August 1st effective date. As we continue to monitor the balances, the Company may, with the guidance of its Advisory Group propose to file a true up at a time other than June 1st.

e. Washington Energy Independence Act Standards for the 2018-2019 Biennium

Washington Energy Independence Act (EIA) requirements establish a minimum electric acquisition standard for conservation resources for each designated biennium. The acquisition requirement can be met with local DSM programs, distribution efficiency acquisition or reductions in generation parasitic load. Fuel efficiency efforts (electric to natural gas conversions) and acquisition attributed to Avista through regional market transformation have been excluded from the acquisition target and are not an eligible measure towards achieving that target.

For the 2018-2019 biennium, the total BCP target subject to penalty is 79,785 MWh. This amount represents the overall conservation to be obtained by Avista before the additional 5% decoupling commitment. As part of the General Rate Case Settlement Agreement in Docket Nos.

UE-140188 and UG-140189, the Company agreed, in consideration for receiving a full electric decoupling mechanism, to increase its electric energy conservation achievement by 5% over the conservation target approved by the Commission, beginning with the 2016-2017 biennial target. After applying the decoupling commitment of 3,989 MWh, the total local biennium target is 83,774 MWh for the 2018-2019 Biennium. The scope of the DSM ACP covers the majority of the acquisition eligible to achieve this target however, does not include efficiencies achieved through distribution or generation facilities.

Since the Washington EIA target was established based upon Northwest Power and Conservation Council methodologies and the Council's RTF Unit Energy Savings (UES), those same methodologies and savings are employed, to the extent possible, in measuring the savings eligible to achieve that target. The planning effort has, with a few isolated exceptions, adopted the same approach so as to generate the best prediction of how 2018 portfolio performance will be retrospectively measured. The use of RTF UES also assists in the management of the Company's EM&V expense by reducing the expenses associated with impact evaluation. However, the relationship between the regional utilities and the RTF is a symbiotic one and any impact evaluations performed on a current RTF measure will be shared with the RTF to help improve the quality of the regional deemed UES.

IV. DSM PORTFOLIO OVERVIEW

Avista's DSM portfolio is comprised of residential, low income and non-residential programs. For 2018, the Company anticipates approximately 42,530 MWh of I-937 qualified savings from its program offerings (w/o NEEA). The following figure illustrates the major categories from which those savings are achieved.

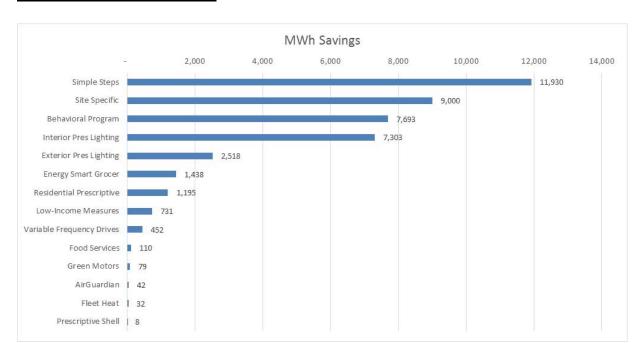


Figure 2: 2018 MWh Savings

a. Residential Portfolio Overview

The Company's residential portfolio is composed of several approaches to engage and encourage customers to consider energy efficiency improvements within their home. Prescriptive rebate programs are the main component of the portfolio, augmented by a variety of other interventions. These include upstream buy-down of low-cost lighting and water saving measures, select distribution of low-cost lighting and weatherization materials, direct-install programs and a multi-faceted, multichannel outreach and customer engagement effort.

Prescriptive rebate programs use financial incentives to encourage customers to adopt qualifying energy efficiency measures. Customers must complete installation and apply for a rebate, submitting proper proof of purchase, installation and/or other documentation to Avista, typically within 90 days from project completion. Customers can submit this form in hard copy and several prescriptive measures are also available to submit online at www.myavista.com.

Residential prescriptive programs typically cover single family homes up to a four-plex. For multifamily situations (five-plex or larger), owners/developers may choose to treat the entire complex with an efficiency improvement. In these unique cases, the projects are treated as a

commercial project and are evaluated within the site-specific portfolio or the prescriptive commercial windows and insulation program.

Avista continues to offer programs delivered to residential customers through third-party contractors such as regional manufacturer buy-downs for small devices such as LEDs, lighting fixtures and showerheads. Avista is planning to continue offering regional manufacturer buy-downs in 2018 and will also look to introduce pilot programs to better engage residential customers.

A measure-by-measure evaluation of the incremental contribution to the TRC test cost-effectiveness of the portfolio is the primary guidance in reaching decisions regarding eligibility for measures. For natural gas, the UCT is also applied. In the event that a previously offered measure is no longer cost-effective, a transition plan is initiated to equitably treat customers who were in or about to commit to participating in the program. Typically a minimum 90-day notice is provided prior to the termination of a program.

Residential programs have a strong presence and coordination with regional efforts, such as those offered by the Northwest Energy Efficiency Alliance (NEEA). Currently there are significant regional efforts active in the markets for ENERGY STAR homes, consumer electronics, ductless heat pumps and standard improvements for new heat pump water heating technologies. Avista has offered local rebates in support of many of the NEEA market transformation ventures and will continue to do so where opportunities for local leveraging of these programs are cost-effective options.

Manufactured Homes are an important customer segment within the residential portfolio and one that is included in many of our 2018 program offerings. We provide incentives through our ENERGY STAR Homes incentive for Eco-Rated manufactured homes. The Company offers a ductless heat pump incentive and a heat pump water heater incentive that offers manufactured homes additional options especially when natural gas is not available. We continue to experience positive results in the manufactured home market with our electric to natural gas furnace incentive. The Company also offers high efficiency natural gas incentives for qualifying furnaces and tankless water heaters. Existing manufactured homes without natural gas are also eligible to apply for excess construction allowance contributions towards the cost (after DSM) for qualifying natural gas water heater and high efficiency natural gas furnaces.

These are just some highlights of continued efforts to focus on and serve manufactured homes along with stick built residential dwellings. Avista recently completed a comprehensive, direct install program treating manufactured homes and delivering \$2.4 million in duct sealing and repair. While Manufactured Homes now have a comparable ENERGY STAR rating in Eco-Rated, Avista was an early adopter in recognizing the cost-effective savings and began offering ENERGY STAR home incentives to manufactured homeowners. As another example of Avista's efforts that may benefit manufactured housing, Avista provides \$2.7 million annually (\$2 million in Washington, \$700,000 in Idaho) to contracted Community Action Partner (CAP) agencies to treat and improve income-qualified homes. Customers in manufactured homes are an area of focus where the CAPs bring a wealth of experience and expertise to assist these customers.

b. Low Income Portfolio Overview

The Company utilizes the infrastructure of seven CAP agencies to deliver low income energy efficiency programs. The CAPs have the ability to income-qualify customers and have access to a variety of funding resources, including Avista funding, which can be applied to meet customer needs. The seven agencies serving Avista's entire Washington service territory receive an aggregate annual funding of \$2,000,000. The distribution of these funds is represented in the following table:

Table 2: 2017 Low Income Funding by CAP Agency

CAP Agency	Counties Served	Funding Allocation
SNAP	Spokane	\$1,335,000
Rural Resources	Ferry, Lincoln, Pend Oreille,	\$174,000
	Stevens	\$174,000
CAC Whitman County	Whitman	\$146,000
Opportunities Industrialization	Adams, Grant	\$75,000
Council		\$73,000
Spokane Indian Housing Authority	Stevens County	\$20,000
Washington Gorge Action	Klickitat, Skamania	\$10,000
Programs		\$10,000
Community Action Partnership	Asotin	\$240,000
(Lewiston)		\$240,000
		Total \$2,000,000

The agencies may spend their annual allocated funds on either electric or natural gas efficiency measures at their discretion as long as the home demonstrates a minimum level of the Avista fuel for space heating use. Agencies have included in their annual funding a 15% reimbursement for administrative costs. Health and human safety measures may also be completed with the amount spent on these improvements not to exceed 15% of the agency's total annual contract amount.

The list of measures offered is derived from the Department of Commerce's Weatherization Manual. To guide the agency toward projects that are most beneficial for the Company's energy efficiency efforts, an "Approved" list of measures is provided that allows for full reimbursement. Measures reimbursed at 100% have a Total Resource Cost (TRC) of 1.0 or better. Per WAC 480-109-100(10)(a), measures identified through the priority list in the Weatherization Manual are considered cost-effective. For efficiency measures with a TRC less than 1.0 and not included on the priority list, a "Rebate" that is equal to the Company's avoided cost of energy is provided as the reimbursement to the Agency.

Both the "Approved" and "Rebate" lists are made available to the agencies during the contracting process so they are aware of the eligible measures and the designated amounts if applicable. Should the Agency have an efficiency opportunity that is not on the "Rebate" list, the Company will review each project individually to determine an appropriate funding amount. The agencies may choose to utilize their Health and Human Safety allotment towards covering the full cost of the "Rebate" measure if they do not have other funding sources to fill in the difference. In 2018 some measures, particularly weatherization, have decreased TRCs below 1.0, however, most are included on the Weatherization Manual priority list and therefore reimbursed at 100%.

The Company is aware that there is concern about declining participation in Low-Income programs, however, we believe that this has been primarily driven by higher costs per weatherized household over the same fixed amount of Low-Income funds available. An actual participant goal would be difficult to determine given that the number of treated homes depends upon the depth and cost of weatherization required by the participating homes as well as the other non-utility funds available to the CAP agencies in any given year.

c. Non-Residential Prescriptive Program Overview

The nonresidential energy efficiency market is delivered through a combination of prescriptive and site-specific offerings. Any measure not offered through a prescriptive program is automatically eligible for treatment through the site-specific program, subject to the criteria for participation in that program. Prescriptive paths for the nonresidential market are preferred for measures that are relatively homogenous in scope and uniform in their energy efficiency characteristics.

Prescriptive paths do not require pre-project contracting, as the site-specific program does, and thus lend themselves to streamlined administrative and marketing efforts. Incentives are established for these prescriptive programs by applying the incentive formula contained within Schedules 90 and 190 to a prototypical installation. Actual costs and savings are tracked, reported and available to the third-party impact evaluator. Many but not all of the prescriptive measures utilize RTF UES.

d. Non-Residential Site-Specific Program Overview

Avista offers nonresidential customers the opportunity to propose any energy efficiency project with documentable energy savings (except for those eligible for a prescriptive offering) for a technical review and potential incentive through the site-specific program. Multifamily residential developments may also be treated through the site-specific program when all or a large number of the residences and common areas are treated. The determination of incentive eligibility is based upon the projects individual characteristics as they apply to the Company's Washington electric Schedule 90 or natural gas Schedule 190 tariffs. The Company has established written processes and procedures to guide the consistent calculation of project incentives. Among other tools, the Company maintains an Excel model (Dual Fuel Incentive Calculator or DFIC) to perform these calculations and conducts technical and administrative checks known as the "Top Sheets."

The site-specific program has historically been one of the more cost-effective portions of the DSM portfolio, as well as generating a substantial share of the energy savings. The year-to-year program performance can be somewhat variable due to the timing of large projects. If the Company falls short of the conservation target over the next two biennium's under WAC-109-

100(3)(c)(ii), five percent of the shortfall can come from excess conservation at a single large facility, which would require additional tracking of savings for those facilities that have loads greater than 5 aMW.

Implementation improvements recently completed that will have a positive impact on the site-specific program include:

- Revisions to the site-specific program implementation processes to improve clarity and promote the timely movement of projects through the pipeline.
- The establishment of four checklists (or "Top Sheets"), one to review the energy efficiency evaluation report, one prior to contracting and a final one prior to the payment of the incentive, in order to ensure consistent documentation and treatment of each project as it progresses through these processes towards completion.

Program marketing relies heavily upon the Account Executive infrastructure and commercial and industrial energy efficiency outreach. Outreach includes print advertising, customer newsletters, customer meetings and vendor outreach. Account Executives have actively managed accounts, but are also available to any customer based upon the geographic location or industry, and serves as their liaison for all energy needs. A portion of the Account Executives effort is expended on coordinating the customer involvement in both the site-specific and prescriptive energy efficiency programs. The program delivery and engineering teams perform additional outreach to customer groups and support of the program marketing, as well as serving their functions within the program implementation process.

The site-specific program savings can be difficult to predict due to large projects with long sales cycles. General economy shifts may also impact customer willingness to fund efficiency improvements. Increases in process and eligibility complexity, increases in customer costs to participate beyond the capital investment and costs for post measurement activities are kept in mind and managed in order to continue to successfully engage customers.

e. Regional Market Transformation

Avista's local DSM portfolio seeks to influence the decision of customers towards the purchase of cost-effective energy efficiency products and services through a combination of incentives, awareness and addressing barriers to adoption. The local DSM portfolio is intended to

be permanent in nature with the understanding that the specific programs and eligibility criteria will be revised over time in recognition of the changing marketplace, technologies and economics. Though these efforts can, and to a degree do, create permanent changes in how our customers make energy choices, it is generally not feasible for Avista to design local programs so as to influence markets that are often regional or national in scale.

Market transformation is an alternate approach to those markets and are defined interventions occurring for a finite period of time, utilizing strategically selected approaches to influence the energy market (customer, trade allies, manufacturers or combinations thereof) followed by an exit strategy. Successful market transformations permanently change the trajectory of markets in favor of more cost-effective energy efficiency choices, well beyond the termination of the active intervention.

Electric utilities within the northwest came together in 1997 to establish and fund a cooperative effort geared towards sustaining market transformation on a regional basis with sufficient scale and diversity to deliver a portfolio capable of delivering a cost-effective electric efficiency resource. That organization, NEEA, entered its fifth funding cycle during 2015. Avista has been an active and funding participant of this collaborative effort since the beginning. Over that period of time, NEEA has delivered to Avista and the region some of the most cost-effective electric efficiency resources within the overall portfolio. Avista has committed to continuing to be part of NEEA for this fifth funding cycle encompassing the 2015-2019 period (inclusive).

It is recognized that the future NEEA portfolio may not be as cost-effective as the past. NEEA's very successful residential lighting efforts, and many other ventures, are difficult to replicate. Nevertheless, there is little doubt that there are cost-effective opportunities that can only be achieved, or that are best achieved, through a regionally cooperative effort. Avista has a high degree of confidence that the NEEA portfolio will succeed, and that Avista's Washington customers continue to benefit from these efforts.

For 2018, the Company's portion of NEEA's Electric budget is expected to be approximatly \$1,400,000 for Washington.

The NEEA funding requirements are incorporated within the budget but are considered to be supplementary expenditures outside of the scope of the current year's local portfolio. The NEEA portfolio has not been incorporated within either the acquisition projection or the cost-effectiveness of the 2018 local portfolio developed within this Plan.

V. PILOT PROJECTS

As described in WAC 480-109-100(1)(c), utilities must engage in adaptive management of conservation portfolios, to ensure that portfolios appropriately respond to changing market conditions during a biennium. Adaptive management of a conservation portfolio includes conducting pilot programs of new technologies or new approaches to engage customers in conservation.

Avista is continuously evaluating new technologies and new approaches for attaining energy conservation. As the Company pursues all cost-effective kilowatt hours and therms, piloting new programs allows the Company and its customers to explore new avenues for obtaining energy savings. For 2018, the Company is exploring multiple pilot programs for both residential and non-residential customers. The progress of these pilot programs was shared with the Advisory Group. The below outlines and describes the six plots (budgets and expected participation numbers are yet to be determined).

a. Residential In-Home Energy Audit and Weatherization

Avista presented the residential direct install program pilot idea to its advisory group for input during the Fall 2017 meeting. The program is anticipated to begin early 2018 and will be contracted through a third-party vendor. The preferred geographic locations for this pilot are populated areas that border Washington and Idaho. That way, a program could be present in both jurisdictions and serviced by a single contractor.

The pilot is designed for qualified customers that seek energy assistance in the form of a home visit to evaluate their home's current state and recommend improvements to make their home more energy efficient. At the time of the visit, the representative will also install energy saving measures along with assess the home's weatherization. The pilot includes the installation of:

LED lamps

- Water aerators
- Showerheads
- Advanced Power Strips

Along with installing the above equipment during the site visit, the representative will also asses the current level of insulation in the home's attic and/or crawl space. Doing this will inform the customer of their home's insulation rating (R value) which will determine if the customer qualifies for an energy efficiency rebate if they choose to install additional insulation. The electrical contractor will perform audits on the qualifying customers and sent those specifications to Avista for approval.

This pilot promises to be effective in addressing Hard to Reach Markets and providing education to our customers through having direct contact with individuals knowledgeable in energy efficiency matters. In addition, it provides an improved avenue to supplying residential customers with weatherization programs by pre-verifying current insulation levels in the customers' home.

b. Multifamily Hard to Reach Program

Avista presented to the advisory group during the Fall 2017 meeting the concept of a Multifamily Direct Install Program. This program would target the hard to reach markets, limited income customers, and individuals that rent or own rental properties. This program would incentivize owners of multifamily buildings to make energy efficient improvements including weatherization improvements, water aerators, low flow showerheads, low flow faucet aerators, LED lighting, vending misers, smart power strips and other measures in both individual housing units as well as common spaces.

c. Residential Behavioral Pilot Program

The smart thermostat pilot program will be part of Avista's diverse portfolio of energy efficiency programs. The primary goal of the program is to achieve behavior-based energy savings through the use of Avista's smartphone application. Avista will partner with a 3rd party vendor to provide between 100 and 1,000 customers access to customized, dynamic energy use data. The

pilot provides customers to access usage information via energy-bridge and installed smartphone application.

The bridge will enable open platform thermostats to communicate to the third party vendor who will in turn compile the data for customer viewing. The communication will be displayed through a desktop web application or smartphone application. The customer will also have the option to select emailed monthly usage home energy reports.

This pilot would run concurrently in Idaho and Washington. The intent of the program is to determine how timely and regular energy consumption feedback will affect the behavior of users. The proposed pilot will utilize open platform smart thermostats installed in homes that are both AMI and Wi-Fi enabled. No specific preference will be given to the brand of Thermostat other than it having to be open platform. Customers participating with in the pilot will have the ability to download the application in Q1/Q2 2018.

The intent is provide customers with auditory or visual alerts that inform on energy use and give energy savings tips and a variety of information for completing various home projects that can save energy.

- Hourly (with a one day delay) interval data as well as real-time (60 second) feedback on their home's energy use, which includes allowing users to explore their energy use on a monthly, weekly, and daily basis.
- The ability to set targets for their use to enable better tracking of energy use goals.
- Weather overlays to allow the user to determine if weather changes impacted their home energy use.
- Weekly challenges, which if completed, can earn the user achievement badges and points to improve the appearance of their in-app avatar.
- Tips for completing various home projects that can save the user energy and money on their bill. These projects are labeled to indicate the level of difficulty in completing the project (i.e., do-it-yourself, intermediate, or requires a pro).

d. Residential Wall Insulation Pilot

Avista will partner with a siding and insulation company in the Spokane/CDA area and offer to pay the incremental cost of the first 25 homes that do the following when replacing their siding: add 2 inches of foam board, install a new building wrap, and allow a ¼ inch gap for humidity control under their new siding. Avista will evaluate the savings and decide if a full

program is cost effective. There is an opportunity to do a post blower door to make sure there is adequate ventilation post upgrade and offer energy recovery ventilators to control air quality.

e. Ecova Commercial Building Operation Simulation Pilot

Continuation of Ecova Commercial Building Operation Simulation Pilot with monthly billing data in Lewiston\Clarkston. Avista has completed the Phase 1 of this pilot and received positive results. With the bulk of AMI earmarked for 2019, the Company is considering another Phase 1 with monthly data so we can highlight customer efficiency needs prior to full AMI rollout.

f. Low-Income Multifamily Pilot Program

The Low-Income Multifamily Pilot Program is designed to service CAP agency owned complexes throughout Avista's service territory and offer cost effective weatherization measures. This project will be in partnership with the CAP agencies and other third-party contractors. The project's goal is to explore the potential for including weatherization projects in Avista's portfolio of measures and offer solutions for hard to reach markets such as multifamily housing. In addition, this weatherization pilot would address the Company's goal of obtaining deep retrofits. Measures proposed with this pilot program include mini-split heating systems, furnace replacements, ventilation systems, window replacements, and insulation measures. The Company, along with the Energy Project will continue to develop this pilot program going forward and will discuss the timing, cadence, and funding mechanisms going forward.

VI. AVISTA-SPECIFIC METHODOLOGIES AND ANALYTICAL PRACTICES

Over time, Avista has evolved approaches to calculating the various metrics applied within the planning effort to the needs of our portfolio and regulation. Care has been taken to ensure that these approaches are consistent with the intent of the Northwest Power and Conservation Council methodologies for the analysis of DSM. Avista completes an Annual DSM Report in the spring of each year based upon a retrospective review of <u>actual</u> results from the prior year. This process includes the calculation of each of the four basic standard practice tests (summarized in Appendix B). For planning purposes, the focus is upon the TRC and UCT test since that is the basis for optimizing the portfolio for the reasons previously explained, and therefore the explanation of

Avista's methodologies focus upon those two tests. Historically we have found that, absent significant mid-year changes in the portfolio, the planning estimate matches reasonably close to the actual results.

Avista's DSM portfolios are built from the bottom up, starting with the identification of prospective efficiency measures based upon the previous CPA and augmented with other specific opportunities as necessary. Since CPA's are only performed every two years, and since the inputs to the CPA are locked many months in advance of filing the IRP itself, there is considerable time for movement in these inputs and the development of other opportunities. The calculation of portfolio cost-effectiveness excludes costs that are unrelated to the local DSM portfolio in that particular year. Those excluded costs, termed "supplemental" costs in Avista's calculations, include:

- The funding associated with regional programs (NEEA)
- Cost to perform conservation potential assessment studies

Individual measures are aggregated into programs composed of similar measures. At the program level, non-incentive portfolio costs are allocated based upon direct assignment to the extent possible and cost are allocated based upon a programs share of portfolio avoided cost value acquisition when direct assignment is not possible. The result is a program-level TRC and UCT cost-effectiveness analysis that incorporates all of these allocated costs. The approach of ensuring that all costs are allocated at the program level is based upon feedback from previous Avista business planning efforts asserting that programs are generally sufficiently large and that the addition or deletion of a program should be significant enough to lead to a resizing of portfolio infrastructure cost.

Since the costs and benefits associated with the adoption of a measure may accrue over time, it is necessary to establish a discount rate. Future costs and benefits are discounted to the present value and compared for cost-effectiveness purposes. Generally, energy and non-energy benefits accrue over the measure life and costs are incurred up-front. During the late summer of 2016, the Company presented to the Advisory Group a proposal to use a real Weighted Average Cost of Capital (WACC), instead of a nominal figure. This suggestion received positive feedback,

therefore a real discount rate of 4.27% was used as the discount rate for the 2018 Plan based upon a nominal WACC of 7.45%.

The calculation of the TRC test benefits, to be consistent with Northwest Power and Conservation Council methodologies, include an assessment of non-energy impacts (both benefits and costs) accruing to the customer. These impacts most frequently include maintenance cost, water and sewer savings and (in the case of the low income program) inclusion of the cost of providing base case end-use equipment as part of a fully funded measure and the value of health and human safety funding (on a dollar-for-dollar basis).

For purposes of calculating TRC cost-effectiveness, any funding obtained from outside of Avista's customer population (generally through tax credits or state or federal administered programs) are not considered to be TRC costs. These are regarded as imported funds and, from the perspective of Avista's customer population appropriate to the TRC test, are not costs borne by our customers. Co-funding of efficiency measures from state and federal programs for low-income programs applicable to a home that is also being treated with Avista funding is not incorporated within the program cost. This is consistent with permitting tax credits to offset customer incremental cost as described within the California Standard Practice Manual description of the TRC test. A more in-depth explanation of these analytical practices is contained in Appendix B.

VII. ANALYTICAL REVIEW OF MEASURES BY PROGRAM

The annual planning process begins with a "blank slate" approach to maximizing the value of the DSM portfolio to customers. The process ends when the portfolio meets, or comes as close as possible to meeting, the desired objectives. Within this section is a summary of the composition and performance of the planned 2018 portfolio.

Decisions when incorporating a measure within a program being offered to customers were primarily, but not exclusively, made upon the contribution of each individual measure to the portfolio cost-effectiveness. Factors other than cost-effectiveness that were considered in the measure status include consistency with other measures, the incentive relative to both the incremental and total customer cost, the marketability and expected customer satisfaction of the measure and the element of uncertainty surrounding all of the inputs to the planning process.

For purposes of reviewing the contributions of these programs, the portfolio has been categorized as follows:

- Residential Prescriptive Programs
- Residential Fuel Conversions
- Low Income Programs
- Low Income Fuel Conversions
- Non-Residential Prescriptive Programs
- Non-Residential Site Specific Programs

Residential Programs

Since the residential portfolio is composed of large numbers of individual customers, the approach is almost exclusively prescriptive in nature. Programs are offered with defined eligibility criteria, and customers meeting those criteria receive a pre-determined rebate. Customers are not required to notify the Company prior to their purchase or installation.

The planning process separated the residential programs into 3 individual programs:

- Residential Prescriptive
- Residential Fuel Conversions
- Simple Steps Smart Savings

All windows, thermostats, heat pump water heaters and heating/cooling equipment were analyzed under a single program but measure level cost effectiveness can be found in Appendix A. The Simple Steps, Smart Savings is an upstream buy down program and includes residential lighting and showerheads.

The program-by-program cost-effectiveness of the portfolio is graphically represented in the figure below:

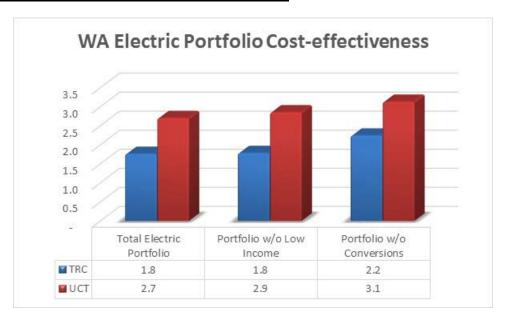


Figure 3: Residential Programs Cost-Effectiveness

Avista's movement towards Advanced Meter Infrastructure (AMI) presents multiple opportunities for both the Company and its customers. One benefit to energy conservation is that customers will be able to receive faster interval data on their energy usage and have the opportunity to adapt based on that data. As the Company approaches the implementation of AMI, changes have been made to our current behavioral program offerings.

For 2018, the Company plans to replace is current Oracle/OPower Home Energy Reports (HER) Program with a residential behavioral pilot program that focuses on providing customers with energy usage information through smart thermostats and advanced analytics tailored to customer premise. This limited pilot will be offered to 1,000 customers in Washington and Idaho and will serve as a test to determine the potential for integration of interval data feedback reporting to customers (details can be found in Section 4.c.). The program is planned to take place during 2018 which will serve to bridge the gap between the Home Energy Reports and AMI's implementation. In addition, the pilot program will provide a more accurate baseline by allowing the persistence from the current home energy report to settle prior to AMI implementation. The planned timeframe for AMI implementation will begin in late 2018 and will continue on through the rest of the 2018-2019 biennium. The 2-year deployment is projected to install 375,000 electric and 365,000 gas meters across Avista's service territory.

Early on in the planning process, the Company had identified that the HER program estimated 15,386 MWh of savings would be achieved in the 2018-2019 biennium. Because the Company had communicated on multiple occasions that the level of savings in the biennial conservation target were inclusive of the HER program, the Company decided to keep the 15,386 MWh in its BCP target.

Low Income Programs

Avista's low income programs are offered in a cooperative effort with Community Action Partner (CAP) agencies under annual contract to Avista. The funding contracts allow for considerable flexibility for the CAP to deliver to each individual low-income client a mix of measures customized to that particular home. For purposes of establishing a projection of program performance for 2018, Avista has defined 26 electric and natural gas measures available to Washington CAPs. Additionally, the CAP agencies are permitted to expend up to 15% of their funding on health and human safety measures on homes receiving Avista-funded treatment. Additionally, CAP agencies may charge Avista up to 15% of the total installed cost of the measures for reimbursement of administrative costs.

Avista's projected funding for each of the measure installations is limited to the present value of the energy savings, with exceptions provided for measures that have a TRC of 1.0 or greater and those measures on the Weatherization Manual priority list. Consequently, the vast majority of measures are covered at 100% reimbursement. If a CAP encounters a measure which they intend to pursue that is not fully funded, the CAP can either use Avista health and human safety funds or use non-Avista funding to complete the funding of the measure. Avista does not include the application of non-Avista co-funding for the installation of energy measures as a cost for purposes of calculating the TRC test. Avista defines two major non-energy benefits uniquely applicable to the low income program. These are:

End-use non-energy benefit - CAPs fund the entire cost of the installation of the measure
in a customer home, not just the incremental cost of the higher efficiency value. To
maintain consistency with how the utility is invoiced and with programmatic budgets, the
Company includes the full invoiced cost within the TRC test. However, the energy
efficiency value of the measure corresponds only to the incremental cost of the efficiency

- measure. Thus, Avista values the cost associated with the baseline end-use as a non-energy benefit being provided to the customer.
- 2. Health and human safety non-energy benefit The 15% health and human safety allowance permitted under the Company's funding contracts with the CAP is assumed to create, on a dollar-for-dollar basis, a quantifiable non-energy benefit. It is assumed that the CAP would only make these investments in an individually reviewed home if the benefits were equal, or in excess of, the cost. Therefore, Avista recognizes a non-energy benefit for health and human safety expenses that is equal to the amount expended.

Other non-energy benefits associated with individual measures are quantified and included within the low income portfolio analysis in a similar manner to any other measure within the Avista DSM portfolio.

The UCT is calculated based upon the authorized expenditure of Avista funds, whereas the TRC cost is based upon the cost of the installation without regard to how that cost is paid. Since the authorized expenditures for a measure are potentially less than the full cost, due to the cap on funding available for most measures at the value of the energy savings, the portfolio UCT costs are lower than the TRC cost. Both the UCT and TRC costs include all assigned and allocated non-incentive utility costs.

Since there are often multiple measures installed at the same time, and these measure packages frequently consist of similar measures, it is statistically difficult to separate the individual measure savings. As a result, Avista has developed adjusted engineering estimates of UES for this program that align with actual impact evaluations for participating homes. While there is confidence that the homes achieved a certain level of savings; it is difficult to determine an individual measures contribution to the energy savings.

Fuel conversions are not included in the I-937 acquisition target therefore Low Income Fuel Conversion in Washington are analyzed separately. Figure 4 below identifies the TRC and UCT cost effectiveness for the Low-Income programs.

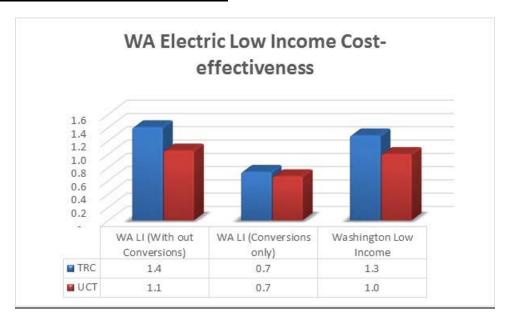


Figure 4: Low Income Cost-Effectiveness

Non-Residential Prescriptive Programs

Nonresidential prescriptive programs are similar to residential prescriptive programs in that they do not require a pre-installation contract and offer a fixed incentive amount for eligible measures. Measures offered through prescriptive programs are evaluated based upon the typical application of that measure by program participants. Measures that are eligible through the prescriptive program are not eligible for the otherwise all-inclusive site-specific program. Prescriptive measures are generally limited to those that are low cost, offer relatively homogenous performance across the spectrum of likely applications and would not significantly benefit from a more customized approach.

The 2018 Electric portfolio is expected to consist of ten prescriptive programs listed below:

- Interior Prescriptive Lighting
- Exterior Prescriptive Lighting
- Prescriptive Shell
- Green Motors
- Motor Control HVAC (VFD)
- Fleet Heat

- EnergySmart Grocer
- Food Service Equipment
- AirGuardian
- Multifamily Market Transformation

Three of the programs (EnergySmart Grocer, Air Guardian and Green Motors) are offered to customers through third-party implementation staff (ClearResult and Green Motors Practices Group respectively) while the other seven programs are fielded by Avista DSM staff.

Quantifiable non-energy benefits are included in the TRC calculation including, but not limited to, reductions in maintenance, water, and sewer and non-utility energy costs. All assigned and allocated non-incentive utility costs have been incorporated into the cost-effectiveness calculation. Figure 5 identifies the TRC and UCT cost effectiveness for the Prescriptive Non-Residential Program.

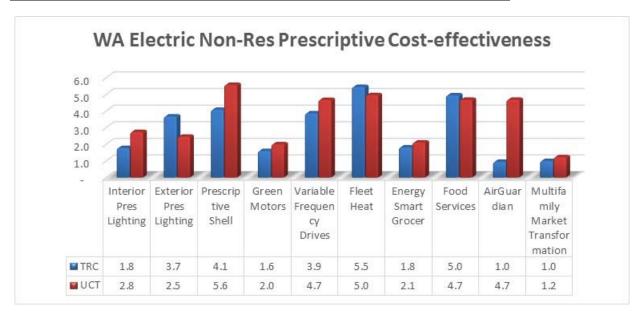


Figure 5: WA Non-Residential Prescriptive Programs Cost-Effectiveness

Site-Specific Program

Avista's site-specific program has historically been one of the largest and frequently one of the more cost-effective programs. Any measure with documentable and verifiable energy savings that is not otherwise covered by a prescriptive program is eligible for the site-specific

program. The all-encompassing nature of the program has led to the participation of a number of projects that would not otherwise have been incorporated within the portfolio.

For planning purposes, the program cost-effectiveness calculations were based off of the structure of schedule 90 and 190. Estimated savings from Site Specific projects for 2018 are based off of the year to date 2017 savings and then annualized for a 12 month period.

The Company does expect some site specific fuel conversion projects to occur in 2018, however the size and scope of those projects is difficult to estimate, so savings estimates have not been included with the plan. Figure 6 identifies the cost-effectiveness for the Site-Specific Programs.

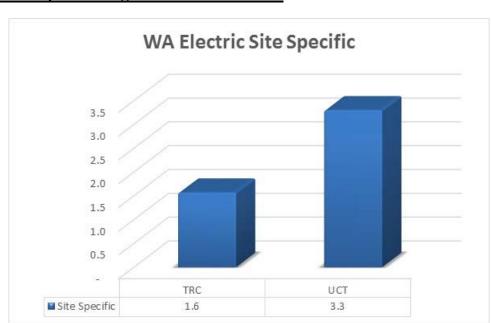


Figure 6: Site-Specific Program Cost-effectiveness

VIII. SECTOR COST-EFFECTIVENESS PROJECTIONS AND RELATED METRICS

Figure 7: Sector Portfolio Cost-Effectiveness

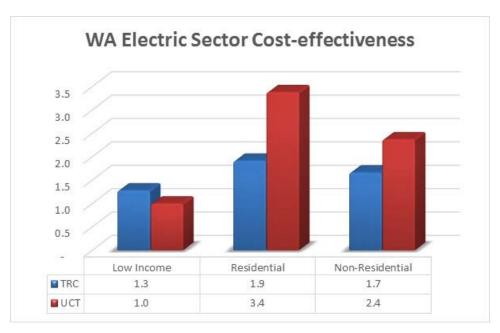
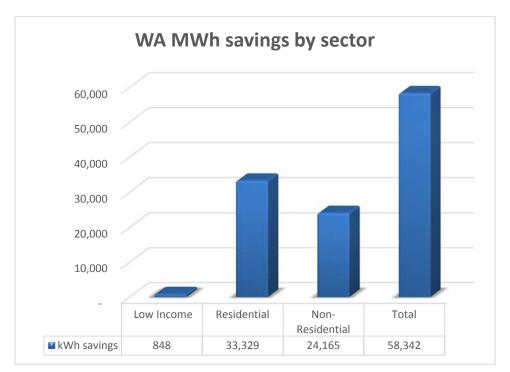


Figure 8: Sector Portfolio Savings (Excludes NEEA, Includes Fuel Conversions)



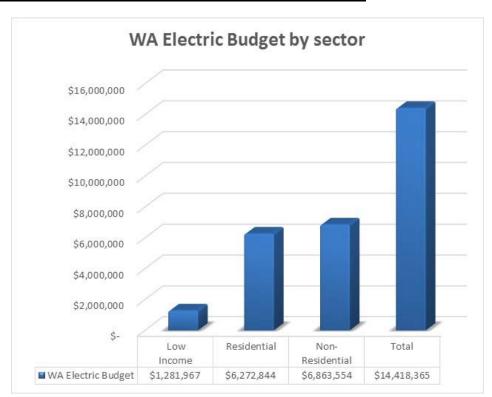


Figure 9: Sector Portfolio Budget (Includes Fuel Conversions)

The above figure represents the total budget for Low-Income, Residential and Non-Residential sectors. In addition to the amount shown below, the Company also anticipates approximately \$350,000 for new pilot programs and an additional \$1,505,000 to fund NEEA and the CPA. The total budget, after including these items, is \$16,273,365.

IX. WASHINGTON I-937 ACQUISITION TARGET

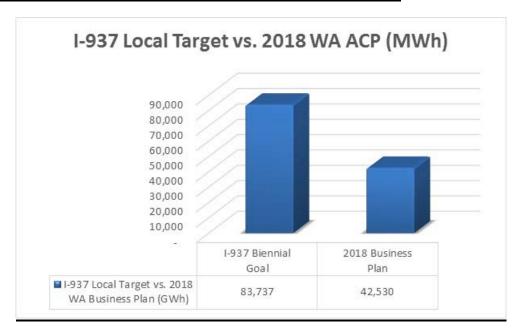
The 2018-2019 Washington I-937 DSM Local Biennial Conservation Target is 83,774 MWh. To fulfill the total biennium conservation target the 2018 business Plan's expected eligible acquisition is 42,530 MWh. The below table illustrates the details of the I-937 acquisition target.

Table 3: Washington I-937 Goal

Category	Target (MWh)
Pro Rata Share of 10-year Conservation Potential	73,636
Behavioral Program Savings	15,386
Less: NEEA savings identified within the CPA	(9,986)
End-Use Efficiency Measures Subtotal	79,036
Distribution and Street Light Efficiency	749
Portion of BCP Target Subject to penalty	79,785
Plus 5% Decoupling Commitment	3,989
Total Local Biennium Target	83,774
Portion of savings from NEEA	9,986
2018-2019 Biennial Conservation Target	93,760

Figure 10 represents the expected 2018 ACP savings of 42,530 MWh.

Figure 10: Local I-937 Target (2018/2019) vs. 2018 WA I-937 Goal



X. SUMMARY OF 2018 BUDGET

Projections of expected labor requirements by job classification are made by managers within the DSM team and labor overheads are applied. Labor is allocated to programs based on the weighted value of benefits the program brings to the overall portfolio.

The expectations in 2018 indicate \$3.7 million of fully loaded labor funding across electric and gas programs in both Washington and Idaho, a 2.2% decrease from the 2017 budget. This amount will fund 25 FTE (Full Time Equivalent) spread across 33 different individuals compared to 24.5 FTE spread across 31 individuals in 2017.

Overall DSM Budget Projections

Based upon all of the preceding planning, a compilation of the total DSM budget is assembled at the completion of the planning process. The placement of the budget compilation at the close of the process is consistent with Avista's commitment to achieve all cost-effective DSM measures and to maximize the value of the portfolio without budgetary constraints. This process assumes that prudently incurred expenditures will be fully recoverable through the DSM tariff rider and that revisions in the tariff rider surcharge will be sufficiently timely so as to maintain a materially neutral tariff rider balance. Thus the budget is a product of the planning process and not a planning objective.

The overall 2018 budget projection is summarized below. The table includes elements of the DSM budget that have been designated as "supplemental" to indicate that they are unrelated to the current year operations and are not included in the cost-effectiveness calculation.

Table 4: Summary of the 2018 DSM Budget

	2018 Washington Electric Budget	Supplemental Budget	Non- Supplemental Budget
Total Incentives	\$9,916,317	\$0	\$9,916,317
Total Labor	\$2,210,768	\$0	\$2,210,768
Total non-labor/non-incentive	\$3,796,280	\$1,505,000	\$2,291,280
Total	\$15,923,365	\$1,505,000	\$14,418,365

The Company continues to track the proportion of total utility expenditures returned to customers in the form of direct incentives as a metric to guide the Company towards improved administrative efficiencies.

Table 5: Proportion of funds returned to customer through direct incentives

% of utility expenditures returned to	
customers via direct incentives	69%

The program-by-program details of the expected incentive expenditures are provided in greater detail below. The incentives are clearly highly correlated to program throughput and energy acquisition.

Table 6: Customer Direct Incentive Expenditure Detail

	Direct Incentive
Low Income Programs	Expenditure
WA LI (With out Conversions)	\$818,136
WA LI (Conversions only)	\$128,988
Residential Programs	
Res Prescriptive	\$164,196
Res Conversions	\$2,471,450
Simple Steps	\$1,093,128
Non-Residential Programs	
Interior Pres Lighting	\$1,167,149
Exterior Pres Lighting	\$439,855
Site Specific	\$1,450,000
Pres Shell	\$1,085
Variable Frequency Drives	\$42,900
Pres Green Motor	\$7,070
Fleet Heat	\$2,082
Energy Smart Grocery	\$216,908
Food Services	\$6,289
Multifamily Market Transformation	\$1,897,000
AirGuardian	\$10,080
Total Low Income Incentives	\$947,124
Total Residential Incentives	\$3,728,774
Total Non-Residential Incentives	\$5,240,419
Total of all incentives	\$9,916,317

The non-incentive expense, including both non-supplemental and supplemental expenditures, is detailed to a lower level of aggregation and broken out by portfolio in the table below. The allocation of these expenses is allocated by the percentage of value provided by each program. The policy regarding assigning costs is based upon the source of the requirement or justification for the expense and the portfolio benefiting from the outcome of that expense.

Table 7: Non-Incentive Utility Expense Detail

	Washington electric portfolio		Supplemental budget		Non-Supplemental budget	
3rd Party non-incentive payments	\$	721,901	\$	-	\$	721,901
Labor	\$	2,210,768	\$	-	\$	2,210,768
EM&V	\$	781,004	\$	-	\$	781,004
Memberships	\$	59,500	\$	-	\$	59,500
Outreach	\$	476,000	\$	-	\$	476,000
Training/Travel	\$	44,625	\$	-	\$	44,625
Regulatory	\$	29,750	\$	-	\$	29,750
Software	\$	178,500	\$	-	\$	178,500
СРА	\$	105,000	\$	105,000	\$	-
NEEA	\$	1,400,000	\$	1,400,000	\$	-
Total	\$	6,007,047	\$	1,505,000	\$	4,502,047

XI. STUDIES AND OTHER ITEMS

a. On-Bill Repayment

As identified in the 2017 Washington Annual Conservation Plan, the Company researched the feasibility of providing customers with a financing option to assist in obtaining new energy efficient equipment. This specific form of assistance involved customers obtaining loans from third party lenders and having those loan repayments collected through Avista's monthly billing. The monthly payment would appear on the face of the customer utility bill as a separate line item from their utility service.

The Company is committed to exploring new avenues to make obtaining energy efficient equipment available to customers and part of that effort is removing obstacles that would hinder that acquisition. While on-bill repayment could be beneficial to the customer, the additional complexity, monitoring, and administrative burden outweighs those benefits. The Company will continue to pursue other avenues to connect with customers in a way that is beneficial for customers, the Company and its ratepayers.

b. <u>iEnergy DSM Enterprise Software Integration</u>

During 2017, Avista began partnering with an outside party, Nexant, to develop and integrate their Demand Side Management enterprise software suite, iEnergy. This program is a purpose-built, data management, analytics and customer engagement platform that assists utilities in managing their business processes. The platform includes an end-to-end management module that tracks and reports energy efficiency savings and expenses along with providing timely reporting for internal and external stakeholders. In addition, the software contains separate modules that provide resources and tools for trade allies, customers, and other parties. The Company anticipates that the integration of iEnergy will take place over the course of the 2018-2019 biennium with the first program transitioning to the new software beginning early 2018.

c. Particulate Matter 2.5

Using a nationwide network of monitoring sites, EPA has developed ambient air quality trends for particle pollution, also called Particulate Matter (PM). PM^{2.5} describes fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller. Under the Clean Air Act, EPA sets and reviews national air quality standards for PM. Avista has entered into a contract with ABT Consulting to start to develop PM 2.5 non-energy values for offering wood burning on a measure BTU basis.

d. Real Time EM&V 2.0

The Company is also currently reviewing and analyzing the benefits of Real Time EM&V 2.0 for its customers. The purpose is to identify any measurable and immediate savings to residential customers using interval data. The Company began this effort in 2016 and hopes to finish this review in late 2017 with possible findings from November 2017 through January 2018.